PMA 2 INGRESS

TOOLS AND EQUIPMENT REQUIRED:

Unstow, place in tool bag:

- 10” Adjustable Wrench
- Docking Target Standoff Cross Removal Kit
- APAS Hatch Tool
- Air Sample Bottle (one)
- Flashlight
- Towel
- 4” Ratchet Wrench, 1/4” Drive
- 4” Extension, 1/4” Drive
- 3/8” to 1/4” Adapter, 3/8” Drive
- Universal Joint, 3/8” Drive
- 1/4” to 3/8” Adapter, 1/4” Drive
- 7/16” Deepwell Socket, 1/4” Drive
- Shuttle/Station Air Duct Assembly
- PMA IMV Duct Assembly
- ISS O2 Segments

SET UP QDMS FOR INGRESS CONTINGENCY SUPPORT

1. Retrieve ISS O2 Extension Segments (two).
   Disconnect QDMs (two) from existing O2 lines.
   Connect a QDM to one end of each of the ISS O2 Extension Segments.

C7 2. √LEH O2 SPLY 1,2 Vlv (two) - Op

MO32M LEH O2 7,8 Outlet (two) - Cl
Connect free end of each QDM/ISS O2 Extension Segment to each O2 outlet.
LEH O2 7,8 Vlv (two) - Op

3. Route both QDM/ISS O2 Extension Segments to Ext A/L.

SET UP EXTERNAL AIRLOCK FOR ODS AND PMA INGRESS

4. Relocate Tool Bag, Shuttle/Station Air Duct Assembly, PMA IMV Duct Extension, and Portable Fan Assemblies, “Return to Houston” Bag to Ext A/L.

ODS Hatch 5. EQUAL VLV (one) → Norm
√ODS Hatch $\Delta P \leq 0.2$ psid

INGRESS ODS VESTIBULE

6. Open ODS Hatch per decal.
   EQUAL VLV (one) → Off, cap installed

CAUTION
Surfaces may be below freezing for a short time after initial ODS Hatch opening. Avoid direct contact with vestibule surfaces until SHUTTLE VESTIBULE TEMP 1,2 (two) indicate > 40 degF (SM 177 DM STATUS ODS INTERFACE).

Insert ODS Air Duct Extension into vestibule.
Wipe any condensate from vestibule volume using the Towel.

7. √**MCC-H**, "Go for Node 1 Ingress."

REMOVE DOCKING EQUIPMENT

8. For each docking light, remove the locking pin, rotate docking light parallel to ODS shell and reinstall the locking pin.

9. Remove crosshairs.

NOTE
The Target Base Plate Cover should be put on the Base Plate any time the Standoff Cross is not mounted on to prevent scratches, surface damage. Similarly, the Standoff Cross should be put in its bag to protect the Standoff Cross when not mounted to the Target Base Plate. The surface of these items is very easily scratched.

10. Don Rubber Gloves.

11. Loosen standoff cross threaded hexagonal cap nut attached to Target Base Plate receptacle, while maintaining a clockwise torque on the jam nut (breaking torque ~450 inlb). Rotate cap nut counter-clockwise (10" Adjustable Wrench and 1" - 1/2" Open-end Wrench).

12. Remove Standoff Cross, insert into bag.
Tmpry stow.

13. Install Target Base Plate Cover and Thermal Liner Assembly.

14. Stow tools, Standoff Cross.

OPEN APAS HATCH

15. Don QDMs.

APAS Hatch

16. APAS EQUAL VLV → Op

SPEC 66 ENVIRONMENT

AFD 17. When CABIN dP/dT < 0.01 (~5 minutes)

Open APAS Hatch:
Select ‘ÐÀÁ Î ×ÅÅ’ (WORKING) torque setting on APAS Hatch Tool.
Insert tool in hatch socket.
Rotate tool 3-4 turns in direction of ‘ Î ÒÊÐ’ (Open) arrow until it clicks.

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*  If tool prematurely slips or does not engage:         *
*       Select ‘ÀÂÀÐÉÉ Í Î Å’ (EMERGENCY) setting*
*        on hatch tool.                                   *
*       Reattempt to open Hatch.                         *
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Remove tool.
Open Hatch.
Stow hatch tool in Tool Bag.
Secure Hatch in open position using fixing device.

SHUTTLE/STATION AIR DUCT INSTALLATION

MO13Q 18. ARLK/TNL FAN A(B) - Off

EXT A/L 19. Disconnect air inlet flex duct from external A/L duct from halo cross air duct.
Obtain Shuttle/Station Air Duct Assembly and straight coupler and connect to air inlet flex duct with T-handle clamp.

20. Secure Shuttle/Station Air Duct Assembly with snap strap to station pedal.

PMA 2 21. Remove V-band coupling and cap from PMA 2 hard duct.
Stow cap on back of Closeout Panel Frame near Node bulkhead with pre-positioned Velcro labeled “Ventilation Duct Cap Stowage.”

NOTE
Cap may be tmpry stow to Velcro on fluid line closeout adjacent to hard duct while shuttle duct connection is being made.

22. Connect free end of Shuttle/Station Air Duct Assembly to PMA 2 hard duct inlet and secure with V-band coupling.

23. Remove V-band coupling and flange saver from starboard IMV flange.
Stow flange saver in bag (to be used in PMA 1 Ingress).

24. Connect PMA 2 Flex duct to PMA IMV extension duct with V-band coupling.
Tighten V-band coupling with Ratchet and Deepwell Socket.

25. Route PMA 2 IMV duct extension around top perimeter of Node 1/PMA 2 interface.

26. Disconnect PMA 2 air duct jumper from launch support. Open Velcro straps securing rest of flex duct to closeout frame (2 places).

27. Connect PMA 2 air duct jumper to PMA IMV extension duct and tighten V-band coupling.

28. Secure PMA IMV duct extension around top perimeter of Node 1/PMA 2 interface with Velcro straps by routing each strap through p-clamp on PCBM flange and around duct (3 places).

Node 1 Fwd Hatch

29. Remove launch hatch restraint pin.
Stow pin in “Return to Houston” Bag.

MO13Q

30. ARLK/TNL FAN A(B) - On